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TO PAUL SCHULWITZ

68527

Access DB# \_\_\_\_\_

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: RICHARD SCHWIZER (STIC) Examiner #: 76557 Date: 6/7/02  
Art Unit: 1635 Phone Number 306-5441 Serial Number: 04/580,463  
Mail Box and Bldg/Room Location: CM/1635/1217 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: CYTODECTIN DIMERS

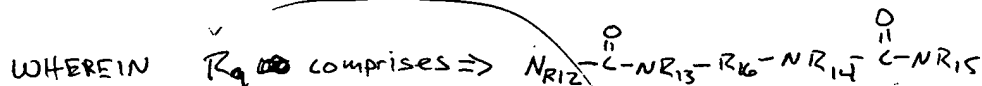
Inventors (please provide full names): CARL J. WHEELER

Earliest Priority Filing Date: 5/28/99

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

THIS IS A NARROWER VERSION OF AN EARLIER REQUEST # 2  
SUBMITTED ON 3/12/02

PLEASE SEARCH FOR THE FOLLOWING STRUCTURE



~~R12, R13~~  $R_{12}, R_{13}, R_{14} \& R_{15} =$  independently  $H$ ,  $C_1$  to  $C_{10}$  alkyl,  $C_1$  to  $C_{10}$  subdalkyl,  $C_1$ - $C_{10}$  alkenyl, or  $C_1$ - $C_{10}$  subd alkenyl

$R_{16} =$  independently  $C_1$ - $C_{10}$  alkyl or  $C_1$ - $C_{10}$  subdalkyl.

### STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>Paul Schulwitz</u>	NA Sequence (#) _____	STN <u><del>STN</del></u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>✓</u>	Questel/Orbit _____
Date Searcher Picked Up: <u>6/12</u>	Bibliographic _____	Dr.Link _____
Date Completed: <u>6/12</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>20</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>27</u>	Other _____	Other (specify) _____

=&gt; d que

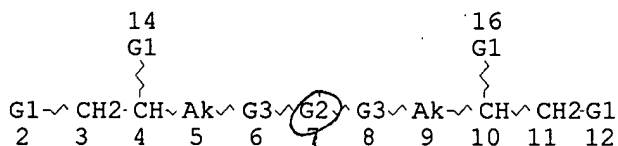
L3

SCR 2040

L9

STR

O~C~O  
@21 @19 20



NH~Ak  
@22 23

Ak~N~Ak  
24 @25 26

VAR G1=O/19/21

REP G2=(1-20) A

VAR G3=NH2/22/25

NODE ATTRIBUTES:

CONNECT IS E2 RC AT 5

CONNECT IS E2 RC AT 9

CONNECT IS E1 RC AT 23

CONNECT IS E1 RC AT 24

CONNECT IS E1 RC AT 26

DEFAULT MLEVEL IS ATOM

GGCAT IS LIN SAT AT 5

GGCAT IS LIN SAT AT 9

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE

L11 4175783 SEA FILE=REGISTRY ABB=ON PLU=ON N&gt;3

L12 2729133 SEA FILE=REGISTRY ABB=ON PLU=ON L11 AND O&gt;2

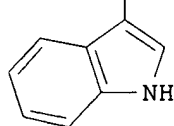
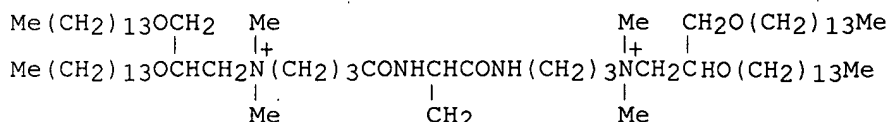
L14 26 SEA FILE=REGISTRY SUB=L12 SSS FUL L3 AND L9

L15 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L14

*R9 broadly defined as 1-20 atoms of  
any kind*

L15 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2002 ACS  
 AN 2000:861646 HCAPLUS  
 DN 134:21482  
 TI Cytofectin dimers and methods of use thereof  
 IN Wheeler, Carl J.  
 PA Vical, Inc., USA  
 SO PCT Int. Appl., 50 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000073263	A1	20001207	WO 2000-US14676	20000526
	W: CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1183231	A1	20020306	EP 2000-939373	20000526
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1999-136472P	P	19990528		
	WO 2000-US14676	W	20000526		
OS	MARPAT 134:21482				
GI					

Br<sup>-</sup>

I

AB A compn. is provided comprising a novel cationic lipid compd. having hydrophobic tails and two quaternary ammonium headgroups bridged by a linker. The compn. is useful as a cytofectin for facilitating delivery and transfection of biol. active agents, particularly anionic bioactive agents such as DNA, into cells. The compn. is useful also as an adjuvant for enhancing the humoral immune response of a vertebrate to an immunogen, esp. an immunogen encoded by a polynucleotide-based vaccine. In certain preferred embodiments, the cationic lipid compd. is a dimer contg. quaternary ammonium headgroups bridged by a linker having DNA and/or cell receptor binding affinity, such as a polypeptide or polyamine. Also disclosed is an immunogenic compn. comprising an immunogen and the compn. of the present invention. I was prepd. as an example compd.

IT 310445-41-1P 310445-42-2P 310445-43-3P

310445-44-4P 310445-46-6P

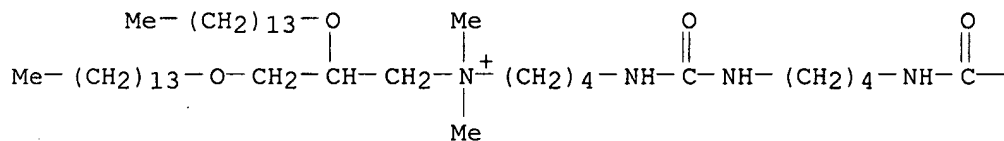
RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)

(cationic lipids prepn. as cytofectin for delivery and transfection of

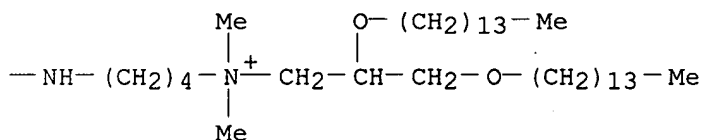
biol. agents)

RN 310445-41-1 HCAPLUS  
 CN 5,7,12,14-Tetraazaoctadecane-1,18-diaminium, N,N'-bis[2,3-bis(tetradecyloxy)propyl]-N,N,N',N'-tetramethyl-6,13-dioxo- (9CI) (CA INDEX NAME)

PAGE 1-A

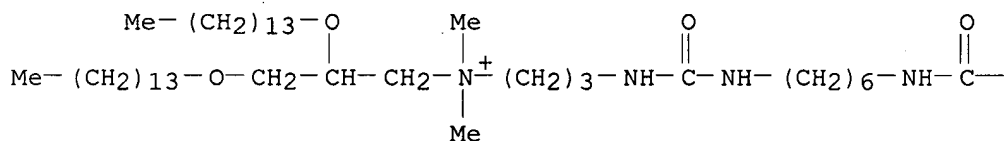


PAGE 1-B

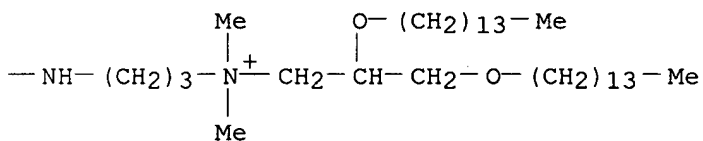


RN 310445-42-2 HCAPLUS  
 CN 4,6,13,15-Tetraazaoctadecane-1,18-diaminium, N,N'-bis[2,3-bis(tetradecyloxy)propyl]-N,N,N',N'-tetramethyl-5,14-dioxo- (9CI) (CA INDEX NAME)

PAGE 1-A

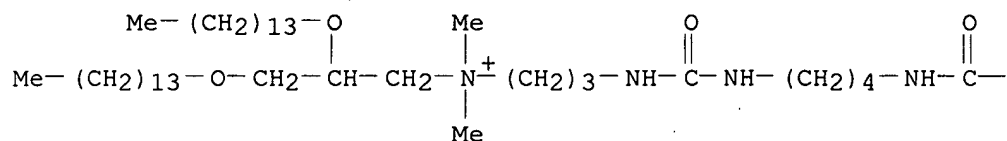


PAGE 1-B

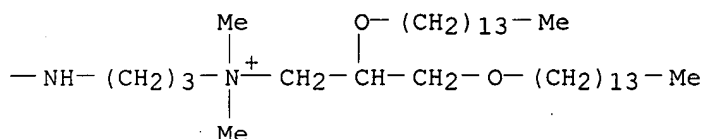


RN 310445-43-3 HCAPLUS  
 CN 4,6,11,13-Tetraazahexadecane-1,16-diaminium, N,N'-bis[2,3-bis(tetradecyloxy)propyl]-N,N,N',N'-tetramethyl-5,12-dioxo- (9CI) (CA INDEX NAME)

PAGE 1-A



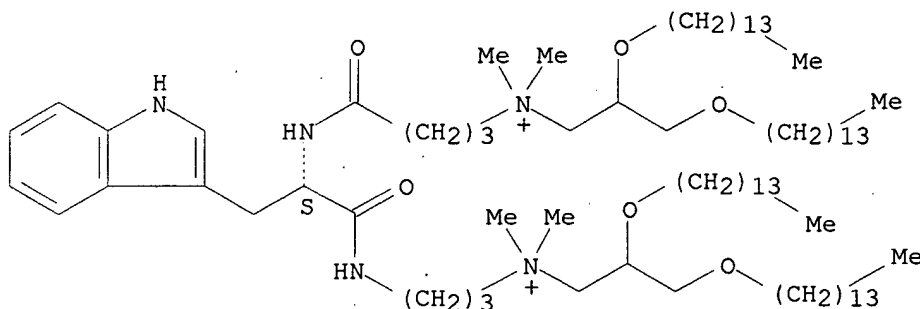
PAGE 1-B



RN 310445-44-4 HCAPLUS

CN 16-Oxa-4,7-diaza-12-azoniatriacontan-1-aminium, N-[2,3-bis(tetradecyloxy)propyl]-6-(1H-indol-3-ylmethyl)-N,N,12,12-tetramethyl-5,8-dioxo-14-(tetradecyloxy)-, dibromide, (6S)-(9CI) (CA INDEX NAME)

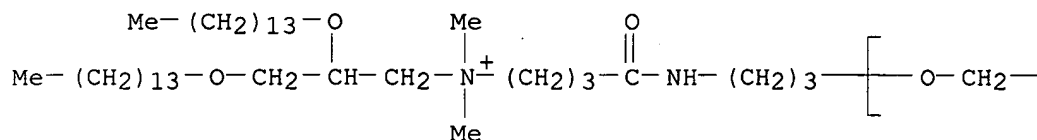
Absolute stereochemistry.

● 2 Br<sup>-</sup>

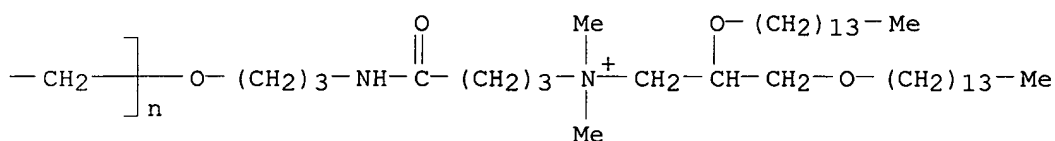
RN 310445-46-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-[3-[[4-[[2,3-bis(tetradecyloxy)propyl]dimethylammonio]-1-oxobutyl]amino]propyl]-.omega.-[3-[[4-[[2,3-bis(tetradecyloxy)propyl]dimethylammonio]-1-oxobutyl]amino]propoxy]-, dibromide (9CI) (CA INDEX NAME)

PAGE 1-A

● 2 Br<sup>-</sup>

PAGE 1-B



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2002 ACS

AN 1999:96214 HCAPLUS

DN 130:169756

TI Inhibition of pulp and paper yellowing using nitroxides and other co-additives

IN Seltzer, Raymond; Wolf, Jean-Pierre; Heitner, Cyril; Schmidt, John Alois; McGarry, Peter Francis; Cunkle, Glen Thomas; Nelson, Randall Bruce

PA Ciba Specialty Chemicals Holding Inc., Switz.

SO PCT Int. Appl., 195 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9905108	A1	19990204	WO 1998-EP4381	19980714
	W:				
	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9890660	A1	19990216	AU 1998-90660	19980714
	AU 723502	B2	20000831		
	EP 1000032	A1	20000517	EP 1998-942556	19980714
	R:				
	BE, CH, DE, ES, FR, GB, IT, LI, SE, FI				
	BR 9811525	A	20000905	BR 1998-11525	19980714
	JP 2001510881	T2	20010807	JP 2000-504107	19980714
	ZA 9806521	A	19990125	ZA 1998-6521	19980722
PRAI	US 1997-53489P	P	19970723		

US 1997-54968P P 19970807  
 WO 1998-EP4381 W 19980714

OS MARPAT 130:169756

AB Pulps or papers, esp. semichem. or thermomech. pulps or papers, which still contain lignin, have enhanced resistance to yellowing when they contain an effective stabilizing amt. of a hindered amine compd. which preferably is a nitroxide, a hydroxylamine or an ammonium salt thereof. The yellowing resistance is often further enhanced by the presence of one or more co-additives selected from the group consisting of the UV absorbers, the polymeric inhibitors, the nitrones, the fluorescent whitening agents, metal chelating agents, S-contg. stabilizers, metal salts and diene compds. Combinations of nitroxides, hydroxylamines or their salts, benzotriazole or benzophenone UV absorbers and a metal chelating agent are particularly effective. Selected derivs. of 1-oxy-2,2,6,6-tetramethylpiperidin-4-ol and selected hydroxylamine salts are novel compds. and are surprisingly effective for this purpose.

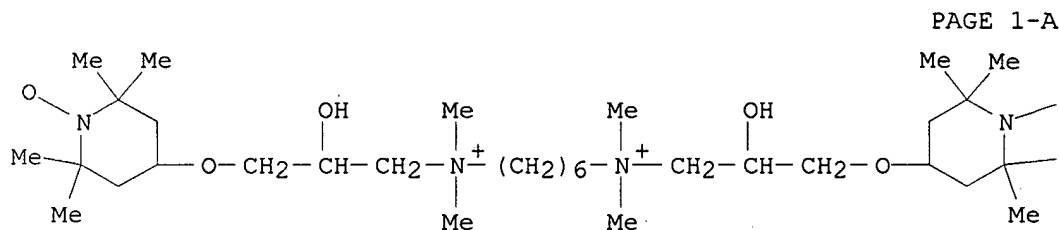
IT 220410-91-3P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(inhibition of pulp and paper yellowing using nitroxides and other coadditives)

RN 220410-91-3 HCAPLUS

CN 1-Piperidinyloxy, 4,4'-[1,6-hexanediylbis[(dimethyliminio)(2-hydroxy-3,1-propanediyl)oxy]]bis[2,2,6,6-tetramethyl-, dibromide (9CI) (CA INDEX NAME)



● 2 Br<sup>-</sup>

PAGE 1-B

—O

—Me

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2002 ACS

AN 1992:511153 HCAPLUS

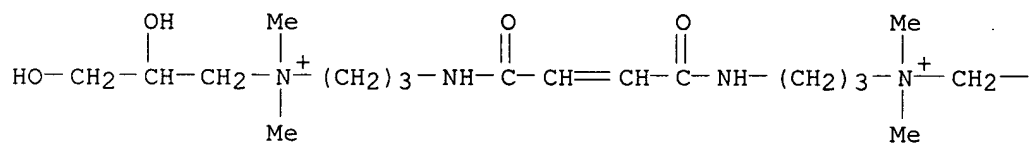
DN 117:111153

TI Preparation of cationic amides as demulsifying agents for petroleum

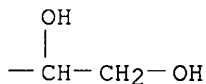
refining  
 IN Chen, Robert G.; Son, Adelina J.  
 PA Baker Hughes Inc., USA  
 SO U.S., 6 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5117058	A	19920526	US 1990-612659	19901109
OS	MARPAT 117:111153				
AB	R1(CONHR2NR3R4+)22X- (R1 = CnH2n alkylene, CnHn alkenylene, phenylene; n = 0-10; R2 = CmH2m; m = 1-4; R3 = Me, Et, Pr; R4, X- = fragments of quaternizing agent) were prepd. as demulsifying agents for petroleum refining. Thus, fumaric acid was amidated by dimethylaminopropylamine at 150-160.degree. for 2 h and the product quaternized in situ by reaction with epichlorohydrin at 60-100.degree. for 2 h to give trans-HOCH2CHOHCH2NMe2(CH2)3NHCOCH:CHCONH(CH2)3NMe2CH2CHOHCH2OH.cntdot.2Cl (I). A no. of tests using I as a demulsifying agent were performed.				
IT	143193-86-6P 143193-87-7P 143193-88-8P 143193-89-9P 143193-90-2P 143193-91-3P RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of, as demulsifying agent for petroleum refining)				
RN	143193-86-6 HCAPLUS				
CN	1-Propanaminium, 3,3'-[(1,4-dioxo-2-butene-1,4-diyl)diimino]bis[N-(2,3-dihydroxypropyl)-N,N-dimethyl-, dichloride (9CI) (CA INDEX NAME)				

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● 2 Cl<sup>-</sup>

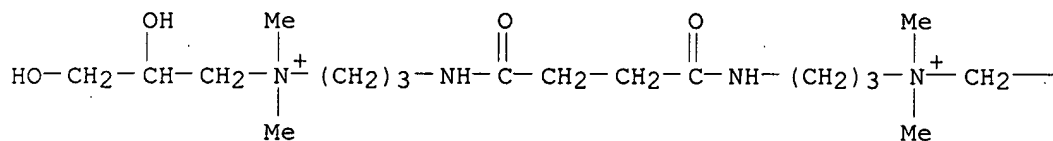
PAGE 1-B



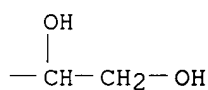
RN 143193-87-7 HCAPLUS  
 CN 1-Propanaminium, 3,3'-[(1,4-dioxo-1,4-butanediyl)diimino]bis[N-(2,3-dihydroxypropyl)-N,N-dimethyl-, dichloride (9CI) (CA INDEX NAME)



PAGE 1-A

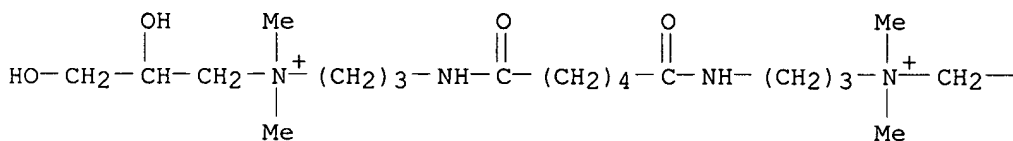
● 2 Cl<sup>-</sup>

PAGE 1-B

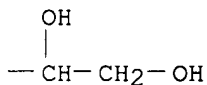


RN 143193-88-8 HCAPLUS  
 CN 1-Propanaminium, 3,3'-[(1,6-dioxo-1,6-hexanediyl)diimino]bis[N-(2,3-dihydroxypropyl)-N,N-dimethyl-, dichloride (9CI) (CA INDEX NAME)]

PAGE 1-A

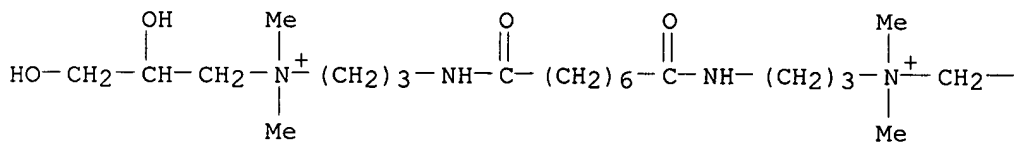
● 2 Cl<sup>-</sup>

PAGE 1-B

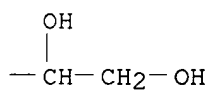


RN 143193-89-9 HCAPLUS  
 CN 1-Propanaminium, 3,3'-[(1,8-dioxo-1,8-octanediyl)diimino]bis[N-(2,3-dihydroxypropyl)-N,N-dimethyl-, dichloride (9CI) (CA INDEX NAME)]

PAGE 1-A

● 2 Cl<sup>-</sup>

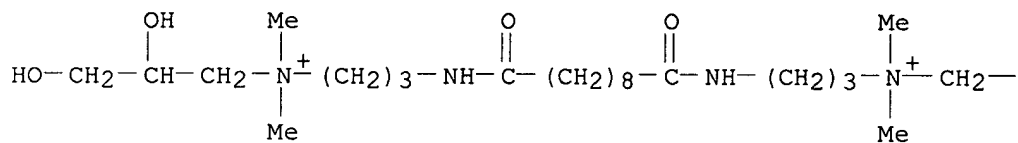
PAGE 1-B



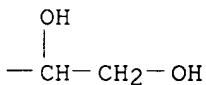
RN 143193-90-2 HCAPLUS

CN 1-Propanaminium, 3,3'-[(1,10-dioxo-1,10-decanediyl)diimino]bis[N-(2,3-dihydroxypropyl)-N,N-dimethyl-, dichloride (9CI) (CA INDEX NAME)]

PAGE 1-A

● 2 Cl<sup>-</sup>

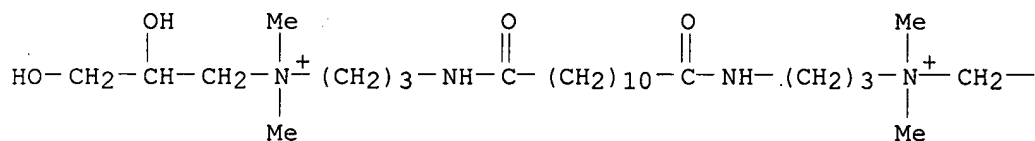
PAGE 1-B



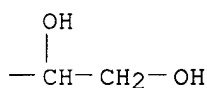
RN 143193-91-3 HCAPLUS

CN 1-Propanaminium, 3,3'-[(1,12-dioxo-1,12-dodecanediyl)diimino]bis[N-(2,3-dihydroxypropyl)-N,N-dimethyl-, dichloride (9CI) (CA INDEX NAME)]

PAGE 1-A

● 2 Cl<sup>-</sup>

PAGE 1-B



L15 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1986:543568 HCAPLUS  
 DN 105:143568  
 TI Photosensitive polymer compositions  
 IN Yanagisawa, Kunio; Araki, Yasuhiko; Shobi, Hajime  
 PA Sekisui Chemical Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61025139	A2	19860204	JP 1984-146627	19840713
	JP 03013582	B4	19910222		

AB The photosensitive polymer compns. contain (A) a photopolymerizable unsatd. monomer having >2 terminal ethylenic group, (B) photosensitizers, (C) a polymer contg. a OH-contg. component, and (D) a compd. contg. .gtoreq.2 amineimide groups. The component D is typically a compd. having the general formula Z(CO:N-N+R1R2R3)n (Z, R, R1, R2, R3 = aliph. or arom. group that may contain O, S, or N atoms; n .gtoreq.2) or its polymer. The compns. useful for prepn. of printing plates and printed circuits are flame-resistant, storage stable, and readily curable to form durable layers. Thus, a compn. contg. 5:95 .beta.-hydroxyethyl methacrylate-Me methacrylate copolymer 60, pentaerythritol triacrylate 30, benzophenone 3, Michler's ketone 0.5, p-methoxyphenol 0.5, and malonic acid bis[1,1-dimethyl-1-(2-hydroxypropyl)amineimide] 2 parts was dissolved in MEK and coated on a PET film. The obtained material was heat-laminated onto a Cu-laminated board, exposed to UV through a neg. original, sepd. from the PET film, developed with a 1,1,1-trichloroethane spray, and treated at 150.degree. for 10 min to obtain a fine protective pattern which was resistant to MEK, acetone, CHCl3, trichloroethylene, MeOH, 10% H2SO4, toluene, xylene, and pH 12 aq. NaOH (at 70.degree.). It was also resistant to 100 cycles of -65.degree. to 125.degree. treatment (each 1 h) and to 2 h dipping in a 260-270.degree. solder bath.

IT 104472-32-4

RL: USES (Uses)

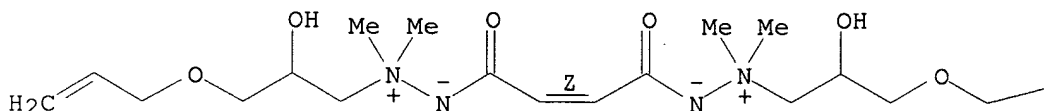
(photosensitive polymer compns. contg. photopolymerizable ethylenic monomer and photosensitizer and hydroxo-contg. polymer and, for prepn. of photoresists and soldering masks and protective coatings and printing plates)

RN 104472-32-4 HCAPLUS

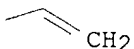
CN Hydrazinium, 2,2'-(1,4-dioxo-2-butene-1,4-diyl)bis[1-[2-hydroxy-3-(2-propenyloxy)propyl]-1,1-dimethyl-, bis(inner salt), (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



L15 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2002 ACS

AN 1980:585710 HCAPLUS

DN 93:185710

TI Synthesis and properties of bis(aminimides) containing ether linkages

AU Inokuma, Seiichi; Kameyama, Eiichi; Osawa, Takao; Kuwamura, Tsunehiko

CS Fac. Eng., Gunma Univ., Kiryu, Japan

SO Yukagaku (1980), 29(5), 354-5

CODEN: YKGKAM; ISSN: 0513-398X

DT Journal

LA Japanese

AB Several dibasic acid esters contg. oxyalkylene units (OCH<sub>2</sub>, OC<sub>2</sub>H<sub>4</sub>, unit no.; 1-5) were treated with aminimines derived from alkyl (C<sub>8</sub>-C<sub>12</sub>) glycidyl ethers and 1,1-dimethylhydrazine, giving a new series of bis(aminimides) with yields of 30-40%. The introduction of ether linkage caused a decrease in m.p. and Krafft point of the bis(aminimides). The lower members were more sol. in water and showed high surface activity, but the higher members were less sol. Cloud point and crit. micelle concn. of these surfactants decrease with increasing m. They were effective phase-transfer catalysts for aq. KI-octyl bromide two phase reaction. Their efficiency increases with increasing m. The efficiency of a higher member (m = 5) was much greater than that of dibenzo-18-crown-6 and was close to that of dicyclohexyl-18-crown-6.

IT 75315-99-0P 75316-00-6P 75316-01-7P

75316-02-8P 75316-03-9P 75316-04-0P

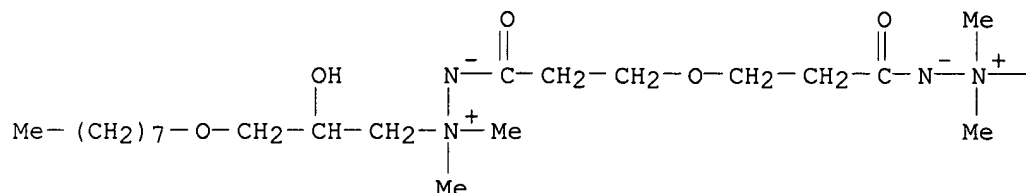
75316-05-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

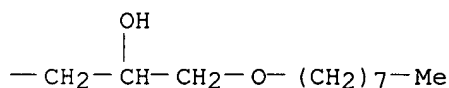
(prepn. and substitution reaction catalysis by)

RN 75315-99-0 HCAPLUS  
 CN 9,18,27-Trioxa-14,22-diaza-13,23-diazoniapentatriacontane,  
 11,25-dihydroxy-13,13,23,23-tetramethyl-15,21-dioxo-, bis(inner salt)  
 (9CI) (CA INDEX NAME)

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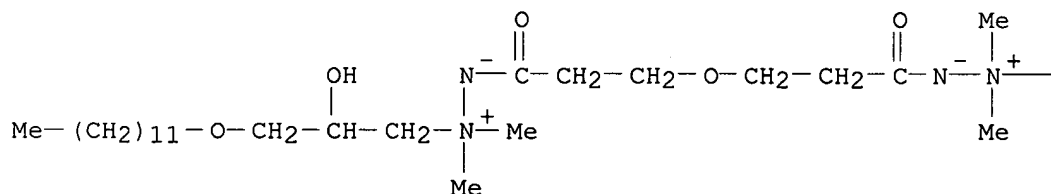


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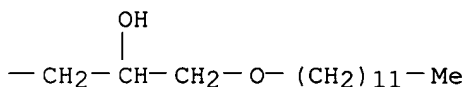


RN 75316-00-6 HCAPLUS  
 CN 13,22,31-Trioxa-18,26-diaza-17,27-diazoniatritetracontane,  
 15,29-dihydroxy-17,17,27,27-tetramethyl-19,25-dioxo-, bis(inner salt)  
 (9CI) (CA INDEX NAME)

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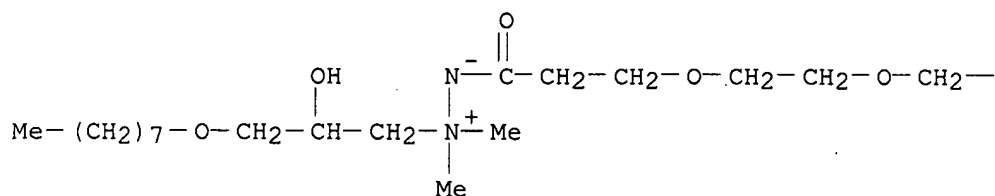


PAGE 1-B

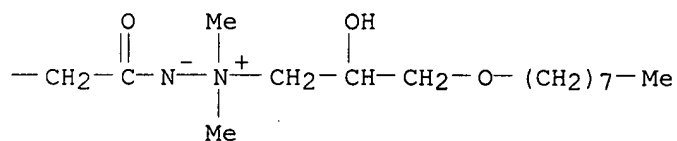


RN 75316-01-7 HCAPLUS  
 CN 9,18,21,30-Tetraoxa-14,25-diaza-13,26-diazoniaoctatriacontane,  
 11,28-dihydroxy-13,13,26,26-tetramethyl-15,24-dioxo-, bis(inner salt)  
 (9CI) (CA INDEX NAME)

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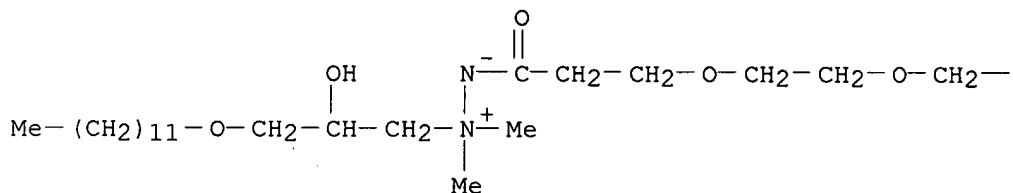
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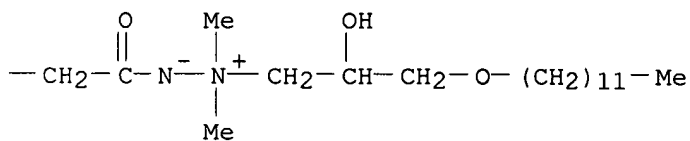
RN 75316-02-8 HCAPLUS

CN 13,22,25,34-Tetraoxa-18,29-diaza-17,30-diazoniahexatetracontane,  
15,32-dihydroxy-17,17,30,30-tetramethyl-19,28-dioxo-, bis(inner salt)  
(9CI) (CA INDEX NAME)

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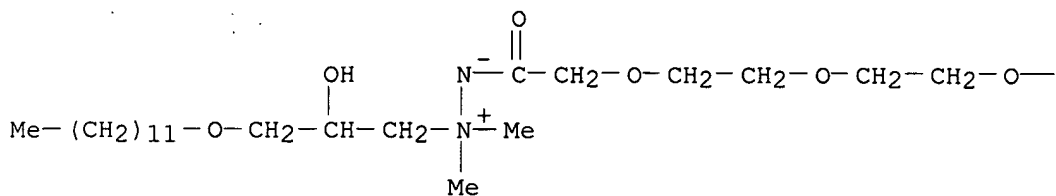
PAGE 1-B



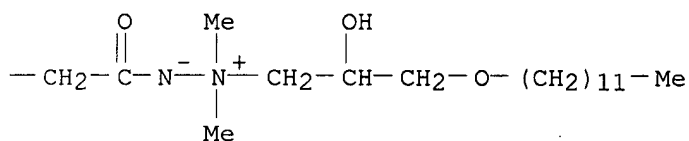
RN 75316-03-9 HCAPLUS

CN 13,21,24,27,35-Pentaoxa-18,30-diaza-17,31-diazoniaheptatetracontane,  
15,33-dihydroxy-17,17,31,31-tetramethyl-19,29-dioxo-, bis(inner salt)  
(9CI) (CA INDEX NAME)

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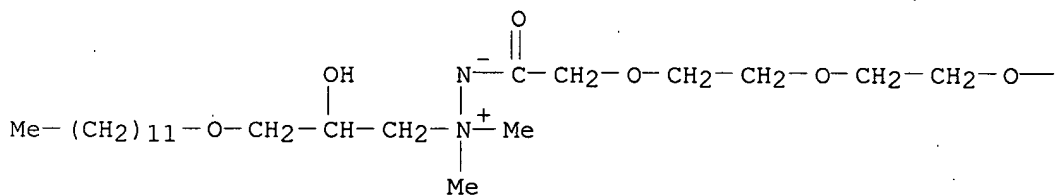
PAGE 1-B



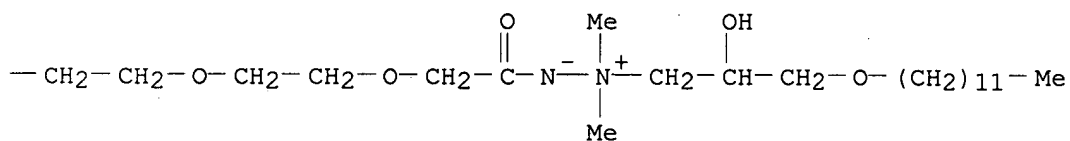
RN 75316-04-0 HCAPLUS

CN 13,21,24,27,30,33,41-Hepta-oxa-18,36-diaza-17,37-diazoniatripentacontane,  
15,39-dihydroxy-17,17,37,37-tetramethyl-19,35-dioxo-, bis(inner salt)  
(9CI) (CA INDEX NAME)

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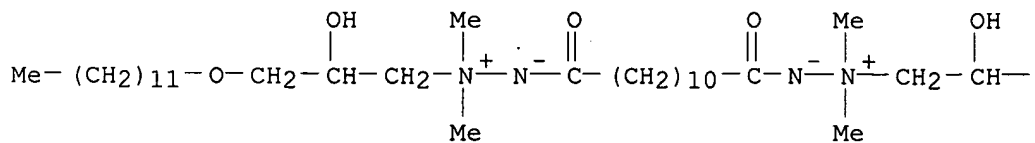
PAGE 1-B



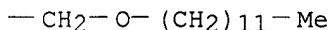
RN 75316-05-1 HCAPLUS

CN 13,36-Dioxa-18,31-diaza-17,32-diazoniaoctatetracontane,  
15,34-dihydroxy-17,17,32,32-tetramethyl-19,30-dioxo-, bis(inner salt)  
(9CI) (CA INDEX NAME)

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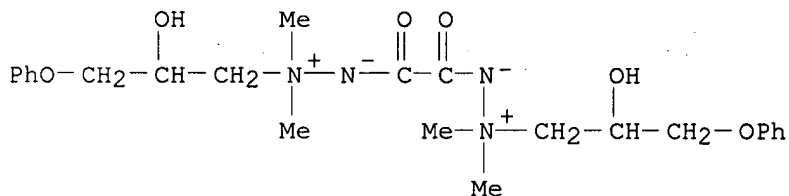


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L15 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1975:480451 HCAPLUS  
 DN 83:80451  
 TI Epoxy resin curing agents  
 IN Matsueda, Kanji; Noguchi, Saburo; Nakano, Yoshitomo  
 PA Permchem Asia, Ltd., Japan; Mitsubishi Petrochemical Co., Ltd.  
 SO Japan. Kokai, 4 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 50038796	A2	19750410	JP 1973-88806	19730809
	JP 55050488	B4	19801218		
AB	Epoxy resins contg. (dioxo-1,2-ethanediyl)bishydrazinium hydroxide inner salt with or without polycarboxylic anhydride have a good shelf life and are easily curable by heating. Thus, a mixt. of 100 parts Epikote 828 [25068-38-6] and 10 parts N,N'-(dioxo-1,2-ethanediyl)bis[1-(2-hydroxypropyl)-1,1-dimethylhydrazinium hydroxide inner salt] [52723-33-8] was stable for >2 months at 40.degree. and cured in 30 min at 155.degree. and in 10 min at 185.degree.. Similarly used were N,N'-(dioxo-1,2-ethanediyl)bis[1-(2-hydroxy-3-phenoxypropyl)-1,1-dimethylhydrazinium hydroxide inner salt] [52723-35-0] and 3 other curing agents.				
IT	<b>52723-35-0</b> RL: MOA (Modifier or additive use); USES (Uses) (crosslinking agents, for epoxy resins)				
RN	52723-35-0 HCAPLUS				
CN	Hydrazinium, 2,2'-(1,2-dioxo-1,2-ethanediyl)bis[1-(2-hydroxy-3-phenoxypropyl)-1,1-dimethyl-, bis(inner salt) (9CI) (CA INDEX NAME)				



L15 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1974:521812 HCAPLUS  
 DN 81:121812  
 TI Epoxy resin compositions of long pot life  
 IN Matueda, Kanji; Niino, Hideki; Nakano, Yoshitomo  
 PA Permchem Asia, Ltd.; Mitsubishi Petrochemical Co., Ltd.



SO Ger. Offen., 31 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2357121	A1	19740530	DE 1973-2357121	19731115
	DE 2357121	C3	19781221		
	JP 49074799	A2	19740718	JP 1972-115704	19721120
	JP 55050050	B4	19801216		
	US 3888827	A	19750610	US 1973-416667	19731116
	GB 1423270	A	19760204	GB 1973-53737	19731120
PRAI	JP 1972-115704		19721120		

AB Thermosetting epoxy resin-hardener compns. of long pot life for, e.g., adhesives and coatings consisted of e.g. Epikote 828 (I) [25068-38-6] and aminimide (RCON-N+R1R2R3) hardeners, e.g. BzN-N+Me2CH2Ph (II) [52723-43-0], optionally in combination with hexahydrophthalic anhydride (III) [85-42-7]. Thus, 10 parts II was dispersed in 100 parts I to give a mixt. of pot life >1 month and gelling time >8 hr at 100.deg.. Hardening this mixt. 5 hr at 150.deg. gave a product of flexural strength (JIS-K 6911) 1050 kg/cm2 and deflection temp. (JIS-K 6714) 82.deg..

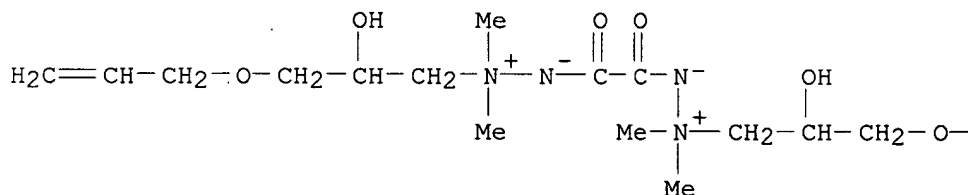
IT 52723-34-9 52723-35-0 52723-36-1

RL: MOA (Modifier or additive use); USES (Uses)  
(crosslinking agents, for epoxy resins)

RN 52723-34-9 HCAPLUS

CN 4,17-Dioxa-9,12-diaza-8,13-diazoniaeicosa-1,19-diene, 6,15-dihydroxy-8,8,13,13-tetramethyl-10,11-dioxo-, bis(inner salt) (9CI) (CA INDEX NAME)

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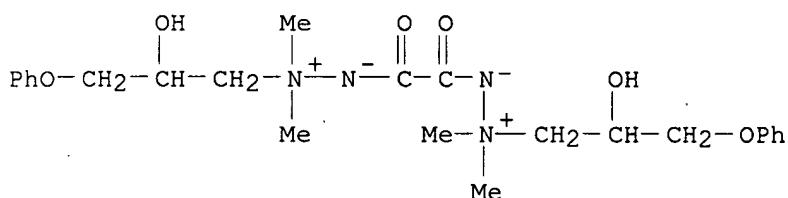


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—CH<sub>2</sub>—CH=CH<sub>2</sub>

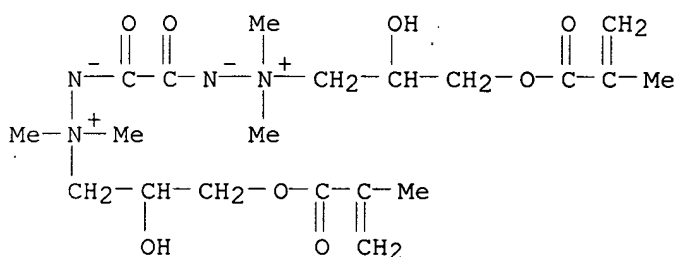
RN 52723-35-0 HCAPLUS

CN Hydrazinium, 2,2'-(1,2-dioxo-1,2-ethanediyl)bis[1-(2-hydroxy-3-phenoxypropyl)-1,1-dimethyl-, bis(inner salt) (9CI) (CA INDEX NAME)]



RN 52723-36-1 HCAPLUS

CN 4,17-Dioxa-9,12-diaza-8,13-diazoniaeicosa-1,19-diene, 6,15-dihydroxy-2,8,8,13,13,19-hexamethyl-3,10,11,18-tetraoxo-, bis(inner salt) (9CI) (CA INDEX NAME)



L15 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2002 ACS

AN 1973:167017 HCAPLUS

DN 78:167017

TI Bisaminimides as antistatic agents for photographic film

IN Ishihara, Masao; Wada, Tsuneo; Yamaguchi, Hisashi; Sugita, Sadao

PA Konishiroku Photo Industry Co., Ltd.

SO Ger. Offen., 32 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2162804	A	19720817	DE 1971-2162804	19711217
	JP 49000064	B4	19740105	JP 1970-113102	19701213
PRAI	JP 1970-113102		19701218		

AB Bisaminimides R2CON-N+R1R3-QN+R4R5N-COR6 (I), R1R2R3N+N-COQCON-N+R4R5R6 (II), and R1R2R3N+N-COQN+R4R5N-COR6 (R1, R3, R4, R5 = alkyl; R2, R6 = alkyl, aralkyl, aryl, or heterocycle) are excellent antistatic agents for photog. materials which have no undesirable side reactions when applied in amts. of 0.1-1000 mg/m<sup>2</sup>. Thus, the coating of I (R1, R3, R4, R5 = Me; R2, R6 = C15H31; and Q = -(CH2)4- at 2.6 mg/m<sup>2</sup> of emulsion decreased the sp. surface resistance of a high-sensitivity x-ray film from 10<sup>14</sup> to 10<sup>12</sup> .OMEGA..

IT 41611-69-2

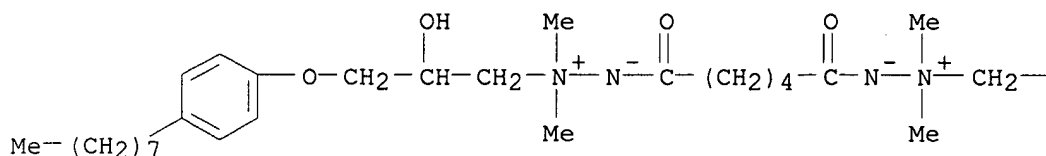
RL: USES (Uses)

(antistatic agent, for photog. films)

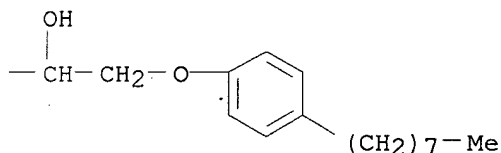
RN 41611-69-2 HCAPLUS

CN Hydrazinium, 2,2'-(1,6-dioxo-1,6-hexanediyl)bis[1-[2-hydroxy-3-(4-octylphenoxy)propyl]-1,1-dimethyl-, bis(inner salt) (9CI) (CA INDEX NAME)

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L15 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2002 ACS

AN 1972:546259 HCAPLUS

DN 77:146259

TI Antistatic bishydrazinium salts for photography

IN Ishihara, Masao; Wada, Tsuneo; Yamaguchi, Hisashi; Sugita, Sadao

PA Konishiroku Photo Industry Co., Ltd.

SO Ger. Offen., 30 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2162805	A	19720727	DE 1971-2162805	19711217
	JP 48043809	B4	19731220	JP 1970-113103	19701218
	US 3794495	A	19740226	US 1971-208891	19711216
	GB 1374779	A	19741120	GB 1971-58663	19711217
PRAI	JP 1970-113103		19701218		

AB Color radiog. Ag halide recording materials contg. bisacylhydrazinium salts have excellent resoln. and graininess and improved image tone. Desirable side effects are a decrease in fog and an increase in the storage stability of the recording material.

IT 38660-37-6

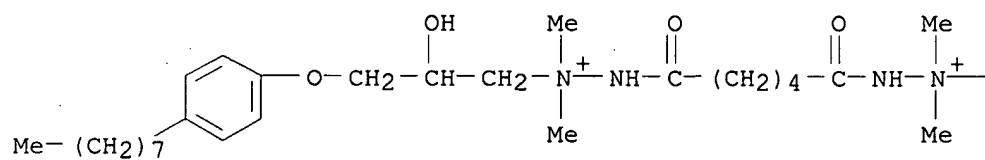
RL: USES (Uses)

(antistatic agent, for photography)

RN 38660-37-6 HCAPLUS

CN Hydrazinium, 2,2'-(1,6-dioxo-1,6-hexanediyl)bis[1-[2-hydroxy-3-(4-octylphenoxy)propyl]-1,1-dimethyl-, dibromide (9CI) (CA INDEX NAME)

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● 2 Br<sup>-</sup>

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